Everett, et al. disclose an absorbent article comprising an absorbent core having multiple absorbent layers that interact in such a way that absorbed liquid is preferentially located in an appointed, high saturation wicking layer. Absorbed liquid is moved quickly through the absorbent layers by means of capillary action. The intake capability of the absorbent system is maintained by keeping a layer of the absorbent system at low saturation levels through as many insults of the product as possible, and controlling intake performance through control of the composite properties of the absorbent layers.

Significantly, no where in the Everett, et al. reference is it taught or suggested that the absorbent article comprises superabsorbent particles, wherein at least about 5% **(by total weight of the superabsorbent particles)** are flake superabsorbents. This is a significant requirement of claim 1 and an important aspect of Applicants' invention.

Although Everett, et al. do state that the superabsorbent particles used in their absorbent products may have a flake shape, (*see* Everett, et al., col. 15, lines 37-39), there is no disclosure in Everett, et al., including in the Examples, of an absorbent article comprising superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents. At best, Everett, et al. teach that the first layer of their absorbent article can include a minimum of not less than about 5 wt.% **of the first layer of superabsorbent material.**[1]

Specifically, as noted in Applicants' specification on page 8, paragraph 21, it has been surprisingly discovered that by utilizing superabsorbent particles in flake form having an average surface area to volume ratio of at least about $0.05\mu m^{-1}$, the absorbent product can absorb complex bodily fluids such as plasma, blood, menses, mucus, and liquid bowel movement in an improved manner as compared to conventional absorbent products utilizing spherical-like superabsorbent particles. Furthermore, Applicants have found that by using at least about 5% (by total weight of the superabsorbent particles), more suitably, at least about 10% (by total weight of the superabsorbent particles), more suitably, at least about 15% (by total weight of the superabsorbent particles), more suitably, at least about 25%(by total weight of the superabsorbent particles), more suitably, at least about 35%(by total weight of the superabsorbent particles), more suitably, at least about 50%(by total weight of the superabsorbent particles), more suitably, at least about 70%(by total weight of the superabsorbent particles), more suitably, at least about 90%(by total weight of the superabsorbent particles), and even more suitably, about 100% (by total weight of the superabsorbent particles) of flake superabsorbent particles, the absorbent products have an improved rate of intake and capacity of for complex fluids.[2]

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[1] *See* U.S. 6,437,214 at column 7, lines 43-50.

In the Response to Arguments section of the instant office action, the Office states that Applicants' argument that Everett, et al. fail to teach or suggest using at least 5% by total weight of the superabsorbent particles as flake superabsorbents is unpersuasive as Applicants' instant specification discloses that the term "flake superabsorbents" also refers to ribbon superabsorbents and Everett, et al. refer specifically to ribbon superabsorbent materials as suitable superabsorbents.

With all due respect, Applicants' confusion over this reasoning turns to frustration when attempting to respond to the Office's arguments. Specifically, Applicants' agree that Everett, et al. disclose ribbon and flake-superabsorbents and Applicants' instant specification does state that flake-superabsorbents include ribbon superabsorbents, however, no where in Everett, et al. is it taught or suggested to use at least 5% (by weight of total superabsorbent in the absorbent article) flake superabsorbent particles.

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[2] *See* Specification, at page 20, paragraph 49.

Moreover, in direct contrast to Applicants' disclosure, Everett, et al. teach the use of spherical superabsorbents. For example, in one preferred embodiment of Everett, et al., and in the Examples, the controlled-rate superabsorbent is configured with relatively large particle sizes to provide particles having a low, surface area to volume ratio, which thereby produces the desired absorbent rate. The controlled-rate superabsorbent particles can have a **substantially spherical or other three-dimensional shape which operatively generates the desired low ratio of surface-area-to-volume** and delayed absorbency rates.[3] As such, Everett, et al. fail to teach, or even recognize, claim 1's requirement that at least about 5% by total weight of the superabsorbent particles be flake superabsorbent particles.

Claims 2-4, 6-10, and 12-14 depend from claim 1 and are therefore patentable for the same reasons as set forth above for claim 1 as well as for the additional elements they require.

Claim 15 is similar to claim 1 and further requires the absorbent article to be a feminine napkin. As such, claim 15 is patentable for the same reasons as set forth above for claim 1 as well as for the additional elements it requires.

Claims 16 and 22-23 depend from claim 15 and are therefore patentable for the same reasons as set forth above for claim 15 as well as for the additional elements they require.

Claim 24 is directed to a method for absorbing blood or menses. The method comprises contacting the blood or menses with an absorbent article comprising superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents and have an average surface area to volume ratio of at least about 0.05 μm^{-1}, a thickness of no more than about 30 micrometers, and a particle size distribution of from about 100 micrometers to about 850 micrometers. Claim 24 is patentable for the same reasons as set forth above for claim 1 as well as for the additional elements it requires.

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[3] U.S. 6,437,214 at column 18, line 65 through column 19, line 5.

Claim 27 depends from claim 24 and is therefore patentable for the same reasons as set forth above for claim 24 as well as for the additional elements it requires.

2. Rejection of the Claims under 35 U.S.C. §103(a)

Reconsideration is requested of the rejection of claims 17-20, 25-26, and 28 under 35 U.S.C. §103(a) as being unpatentable over Everett, et al. (U.S. Patent No. 6,437,214).

Claims 17-20 depend from claim 1. As discussed above, claim 1 is patentable over the Everett, et al. As claims 17-20 depend from claim 1, claims 17-20 are patentable over the Everett, et al. reference for the same reasons as claim 1, as well as for the additional elements they require.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143 requires that the Office must meet three criteria: (1) the prior art reference must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and (3) there must be some reasonable expectation of success. An obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of the case. The common sense of those skilled in the art can demonstrate why some combinations would have been obvious where others would not. The Office has clearly failed to meet its burden under numbers (1) and/or (2) above, as the cited reference does not teach or suggest all of the claimed limitations and there is no apparent reason to modify the reference to arrive at each and every limitation of

Applicants' claim 1. It simply would not have been obvious to one skilled in the art to arrive at Applicants' claimed combinations.

As noted above, there is simply nothing in Everett, et al. stating that its superabsorbents as disclosed should comprise at least about 5% (by total weight of the superabsorbent particles) are flake superabsorbents. Nor is there any reason for one skilled in the art, reading Everett, et al. to modify the superabsorbents described therein to arrive at a superabsorbent that comprises at least about 5% (by total weight of the superabsorbent particles) are flake superabsorbents.

The Office has cited column 7, lines 49-50 and column 15, lines 37-39 of Everett, et al. in support of its assertion that Everett, et al. disclose an absorbent article for absorbing a complex fluid comprising an absorbent structure and superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents. Applicants respectfully submit that the Office appears to be misinterpreting Everett, et al. Although Everett, et al. do state that the superabsorbent particles used in their absorbent products may have a flake shape, (*see* Everett, et al., col. 15, lines 37-39), there is no disclosure in Everett, et al. of an absorbent article comprising superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents. The passage of Everett, et al. cited by the Office (i.e., col. 7, lines 49-50) merely describes the minimum amount of superabsorbent material in the first layer of the absorbent core.[4] There is no mention in this passage of flake superabsorbents, much less any disclosure or suggestion that at least about 5% (by total weight of the superabsorbent particles) of these superabsorbent particles are flake superabsorbents.

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[4] "Such first layer desirably includes a minimum of not less than about 5 wt% superabsorbent." Everett, et al., col. 7, ln. 49-50.

There are also several other passages in Everett, et al. that provide amounts of superabsorbent particles.[5] However, like the above cited passage, none of these passages are referring to the amount of superabsorbent particles that are flake superabsorbents. Rather, they are simply describing the amount of superabsorbent particles that may be present in various absorbent layers of Everett's absorbent product. There is simply no disclosure or suggestion in Everett, et al. of an absorbent product comprising superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents.

Furthermore, as noted above, in direct contrast to Applicants' disclosure, Everett, et al. teach the use of spherical superabsorbents. For example, in one preferred embodiment of Everett, et al., and in the Examples, the controlled-rate superabsorbent is configured with relatively large particle sizes to provide particles having a low, surface area to volume ratio, which thereby produces the desired absorbent rate. The controlled-rate superabsorbent particles can have a **substantially spherical or other three-dimensional shape which operatively generates the desired low ratio of surface-area-to-volume** and delayed absorbency rates.[6] As such, Everett, et al. teach away from preferably using flake superabsorbents as the superabsorbent particles in their absorbent article.

Moreover, the common sense of one ordinarily skilled in the art would not have provided a reason to modify the Everett, et al.

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[5] *See, e.g.*, Everett, et al., col. 23, ln. 35-38 ("The first layer portion can also contain a minimum of not less than about 20% of superabsorbent material by weight, and desirably contains not less than about 30% superabsorbent."); col. 24, ln. 15-18 (stating that the second layer region portion can include a blend of hydrophilic fibers and superabsorbent gelling material, such that about 20-80 wt% of the composite is composed of superabsorbent particles); and col. 26, ln. 21-23 ("The second layer portion can also contain not less than about 5% of superabsorbent material, by weight, and desirably contains not less than about 15% superabsorbent.").

[6] U.S. 6,437,214 at column 18, line 65 through column 19, line 5.

reference to arrive at Applicant's absorbent article of claim 1. Specifically, as recognized by the Supreme Court in KSR International Co. v. Teleflex, Inc., "while an obviousness determination is not a rigid formula, the TSM (teaching, suggestion, motivation) test captures a helpful insight: A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the art. Although common sense directs caution as to a patent application claiming as innovation the combination of two known [elements] according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the art to [modify] the elements as the new invention does."[7] More particularly, a court must ask whether the improvement is more than the predictable use of prior-art elements according to their established functions. If a person of ordinary skill in the art can implement a predictable variation, and would see the benefit of doing so, §103 likely bars its patentability. For example, in KSR, the patented invention was directed towards an improved adjustable vehicle pedal assembly, and, as has long been held in the Federal Circuit, mechanical arts are predictable.[8] Recognizing that mechanical devices such as adjustable vehicle pedals and sensors can be predictably modified and combined by one skilled in the art, the Court invalidated the patent as obvious.[9]

By contrast, areas of chemistry, such as in the instant case of Applicant's absorbent products, have been held inherently unpredictable. Specifically, as stated in In re Marzocchi,[10] "in the field of chemistry generally, there may be times when the well-known *unpredictability* (emphasis added) of chemical reactions will alone be enough to create a reasonable doubt as to the accuracy of [generalized] broad statements." That is, chemical reactions are, by their nature, unpredictable and, as such, generalized or broadly disclosed elements cannot necessarily be predictably modified.

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[7] KSR Int'l Co. v. Teleflex, Inc., et al. 550 US____, 2007 WL 1237837 at 5 (2007).
[8] *See* MPEP §2164.03 (*citing* In re Vickers, 141 F.2d 522, 526-27, 61 USPQ 122, 127 (CCPA 1944); In re Cook, 439 F.2d 730, 734, 169 USPQ 298, 301 (CCPA 1971)); *See also,* In re Wright, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993); In re Vaeck, 947 F.2d 488, 496, 20 USPQ2d 1438, 1445 (Fed. Cir. 1991).
[9] KSR Int'l Co. v. Teleflex, Inc., et al. 550 US____, 2007 WL 1237837 at 17 (2007). Specifically, the Court held that there was convincing evidence that mounting a modular sensor on a fixed pivot point of a pedal was a design step well within the foreseeable grasp of a person or ordinary skill in the relevant art and, as such, the claimed adjustable pedal assembly of claim 4 was obvious.

Everett, et al. merely list flake shaped superabsorbent particles as two of eight different shapes their superabsorbent particles may have. There is nothing in Everett, et al. to suggest that using flake shaped superabsorbent particles would provide any particular advantage over any of the other shapes listed in Everett, et al. As such, why would one skilled in the art, reading Everett, et al., have a reason to produce an absorbent article comprising superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents? One skilled in the art would not have such a reason as there is simply nothing in Everett, et al. to suggest that at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles should be flake shaped.

As there is no teaching or suggestion as to the amount of flake shaped superabsorbent particles in the superabsorbent materials used in Everett, et al., there is no disclosure or suggestion to provide the necessary reasoning needed by one of ordinary skill in the art to modify the amounts of flak shaped superabsorbent particles in the superabsorbent materials to arrive at the specific absorbent article as required in claim 1. And, claims 17-20, which depend on claim 1, are thus patentable over the Everett, et al. reference for the same reasons, as well as for the additional elements they require.

Claims 25-26, and 28 depend from claim 24, which is similar to claim 1 and discussed above. Claim 24 is patentable over the

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[10] 439 F.2d 220, 223-24, 169 USPQ 367, 369-70 (CCPA 1971).

Everett, et al. reference for the same reasons as set forth above for claim 1, as well as for the additional elements it requires. Claims 25-26 and 28 are thus patentable over the Everett, et al. references for the same reasons as set forth for claim 24, as well as for the additional elements they require.

CONCLUSION

In light of the foregoing, Applicants request reconsideration of the rejection of claims 1-4, 6-10, 12-20, and 22-28 and allowance of all pending claims. The Commissioner is hereby authorized to charge any government fees which may be required to Deposit Account No. 01-2384.

Respectfully Submitted,

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